19290688 . 192701

61. YGRQDLHLRIFDPSPEDIARADNIFTATERNRIDYVSSAVRIDHAPDLPRPEVCFIGRSN	MFPAQFVSFIMGAVRMDAMPSDI,PEVAFAGRSN	121' VGKSSLIKALFSLAPEVEVRVRVSKKPGHTKKRMPFKVGKHFTVVDMPGYGFRAPED ******* * * * * * * * * * * * * * * *	35" VGKSSLINGLVNQKYLARASNEPGRTRQINFFLLAEKVRLVDLPGYGFARVSRSIADK	176' FUDMVETYLKERRNIKRPELLUDSGVGIQKTDNIALEMCEEFALPYVIVLTKIDKSSKGH * * * * * * * * * * * * * * * * * * *	93" FQDLGRAYLRGRANLKRVYVLIDARHGLKKVDLEALDALIYVAAVSYQIVLTKADKIKPAE	236' LLKQVLQIQKEVNMKTQGCFPQLFPVSAVTFSGIHLLRCFIASVTGSLD	153" VDKVVARTQKAIAKRAAA-FPRVLATGSEKGLGMPELRAEIVRLCIDE
19	1,,	121	35"	176'	93"	236	153"
HP02573	CgpA	нР02573	CgpA	HP02573	CgpA	нР02573	CgpA

61' KVPLAGGGRKPRLHRRHRVYKLVEDTKHRPKENLELILTQSVENVGVRGDLVSVKKSIGR HP02612

RL9_MYCLE 1"

MKLILTADVDHLGSVGDTVEVKDGYGR

HP02612 121' NRLLPQGLAVYASPENKKLFEEEKLLRQEGKLEKIQTKAGEALGVVVAPHTLKLPAEPIT ********

RL9_MYCLE 28" NFLLPHGLAIVASRGAQRQADEIRRAR-ETKAMRDREHANEIKVAIEALGSVSLPMKTVA

HP02612 181' RWGEYWCEVTVNGLDTVRVPMSVVNFEKPKTKRYKYWIAQQAAKAMAPTSPQI

RL9_MYCLE 87" DSGKLFGSVTAGDVVAAIKKAGGPNLDKRIVRLPKTHIKAVGTHPVSVHLHPEVDVVVLL

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HP10117 61' KAKGKGGGQTRVNINAALVEDIINLEEVNEEKKSVIEALKDNFNKTLNIKTBSPGSLJKIA " * * * * * * * * * * * * * * * * * *
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i.

1 MORVSGLLSWILSRVLWLSGLSEPGAARQPRIMEE-KALEVYDLIRTIRDPEKPNTLEEL * *** * *** * *** * * 1" MGQERLDNANPTLFDSKPRHRPVTGTERDESVEDPIDSWEIFDLIRDINDPEHPYTLEQL 61" NVVQEELIKV-FIDEEETFVKVNFTPTIPHCSMATLIGLAIRVKLLRSLHPKVKVSVSIT 60' EVVSESCVEVQEINEEEYLVIIRFTPTVPHCSLATLIVGNLHF CEF4562 HP10120 HP10120 CEF45G2

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MGEAIVRWSALAAHLLFFGSKVFSKIFYFLMFFKSTMWRSLPSLVS-SAVRSQNAVNT

    MAAAGLALLCRRVSSALKSSRSLITPQVPACTGFFLSLLPKSTPNVTSFHQYRLLHTTLS

                                                                                                                                                                                                                                                                                                                                                                           HP10421 115' LEQEAKRQRLPMPSPERLDKVVDSMDALDKVVQEREDALRLLQTGQERARPGAWRRDIFG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B0261.4 177" GFTYQKQATEHFAPPQLGQKEYETPYLDDDAYVMQKLWQEKEFMKNRDRLDDEKRRAART
                                                                                                                                                                                        61' R--KGLEEFFDDPKNWG----QEKVKSGAAWTCQQLRNKSNEDLHKLWYVLLKERNMLLT
                                                                                                                                                                                                                                58" RFSSTMKOFFDDEANFCKAELRPKHRPGRSWTAEELRLKSNSDLHKLWYVCLKERNMLIT
                                                                                                                                                                                                                                                                                                                                                                                                                        B0261.4 118" MKKAHTSRARNMPNPERLDRVHETMDRIESVVHERNDAVFRLETG-ESAAPRKRTITSFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HP10421 175' RIIWHK-FKQWVIPWHL-NKRYNRKRFFALPYVDHFLRLERE---KRARIKARKENLERK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HP10421 230' KAKILLKKFPHLAEAQKSSLV
                                                                                                                                                                                                                                * * ****
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B0261.4 237" EDMDRFKRGAPRVFNR
                                                                                                                                                                                        HP10421
HP10421
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MDSNHQSNYKLSKTEKKFLRKQIKAKHTLLRHE-GIETVSYATQSLVVANGGLGN	YKY5_CAEEL 361" RELSYFNEEKAKRIGERFEGGKLAKKVHKSIEQLKRHDPDVQISTEPPKYLLVSNSSILC	55' GVSRNQLLPV-LEKCGLVDALLMPPNRPXSFARXRTTEBSKRAYUTLNGKEVVDDLGQKI	XKY5_CAEEL 421" GVSLEELEEIFLPEDELAEFIVYPNKRSYSFVQCSSIEKSIQVRTELHGLIPPSLKNSHQ	114' TLYIMPVEKVQWKELRPQALPPGLMVVEELISSEEKMLLESVDWTEDTDNQNSQKSLKH	! ! ! !	174' RRVKHFGYEFHYENNNVDKDKPLSGGLPDICESFLEKWLRKGYIKHKPDQMTINQYEPGQ	XKY5_CABEL 535" RAVVHFGHVFDYSTNSASEWKE-ADPIPPVINSLIDRLISDKYITERPDQVTANVYESGH	234' GIPAHIDTHSAFEDEIVSLSLGSEIVMDFKHPDGIAVPVMLPRRSLLVMTGESRYLWT	YKY5_CAREL 594" GIPSHYDTHSAPDDPIVSISLLSDVVMEPKDGANSARIAPVLLKARSLCLIQGESRYRWK	292' HGITCRKFDTVQASESLKSGIITSDVGDLTLSKRGLRTSFTFRKVRQTPCNCSYPLVCDS	YKY5_CAREL 654" HGIVNRKYDVDPRTNRVVPRQTRVSLTLRKIRRKPCECEWKEFCDW
1.	361"	55	421"	114	481"	174	535"	234	594"	292	654"
HP10582	YKY5_CAEEL	HP10582	YKY5_CAEEL	HP10582	YKY5_CAEEL	HP10582	YKY5_CAEEL	HP10582	YKY5_CAREL	HP10582	YKY5_CAEEL

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нР10582	352	QRKETPPESPESDKEASRLEQEYVHQVYEELAGHFSSTRHTPWPHIVEFLKALFSGSIVA
YKY5_CABEL	700"	YKY5_CAEEL 700" DRKGE-MSVPSNEDLALKLENSYVSDVYENIASHFDETRHSSWKAVKQFINELFRGSVMY
HP10582	412	DIGCGNGRYLGINKELYMERRVAALQEIVRLLRPGGRALIYVWAMEQEYNKQKSKYLHGN ******** *
YKY5_CAEEL 759"	759"	DVGCGNGKYL-IPKDG1
нР10582	472	RNSQGKKEEMNSDTSVQRSLVEQMRDMGSRDSASSVPRINDSQEGGCNSRQVSNSKLEVH
YKY5_CAEEL	813"	YKY5_CAEEL 813" AAISIAVLHHIAFFERRKRLIEELLRVVKPGSKICVF-VWSMDQSQSEYAKMRGNKDDV-
нР10582	532	532 · VNRTSFYSQDVLVPWHLKGNPDKG-KPVEPFGPIGSQDPSPVFHRYYHVFREGELEGACR
YKY5_CAEEL	871"	YKY5_CAEEL 871" AAAPAVSSEETQTTNRLKVHDGKDFEQQDVLVPWTIDQKGETFLRYYHVPREGEAEKLIE
нР10582	591	TVSDVRILGSYYDQGRWCVILQKA
YKY5_CAEEL	931"	YKY5_CABEL 931" SVQGCKLISVEKEQGNY-IIIAKKI

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HP10160		1 MASRGKTETSKLKQNLEEQLDRIMQQLQDLEECREELDTDEYEETKKETLEQLSEENDSL
ZK1248	1.	MGVDDLLIKNAQKTIDRLIKQLARIRQEENNLÆEDEYRELREDTVNQLQEYGKIV
нР10160		61 KKIMSGNMTLVDELSGUQLAIQAAISQAFKTPEVIRLFAKKQPGQLRTRLAEMDRDLMVG
ZK1248	99	56" ERLOGGDVSLIDDLTATKTAIRTAISKAFKTPEIMALFAGKHTGLLREKLMMTETNYRSQ
нр10160	121	HP10160 121' KLERDLYTQQKVEILTALRKIGEKLTADDEAFLSANAGAILSQFEKVSTDLGSGDKILAL
ZK1248	116"	ZK1248 116" KOPROGYLERKFEIIMALRRLEETLTEDERKFLSDRLETPEFQLIEANANRLESGNVT
HP10160	181	HP10160 181' ASFEVEKTKK

ZK1248 174" SPVFRVQIMASPKKPKKPKLDDKTENVSPPWKAWWHTEKKRKFYTNDKTKESLWDHPNTR

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1 MKLLTHNILSSHVRGVGSRGFPLRLQATEVRICPVEFNPNFVARMIPKVEWSAFLEAADN 1" MKLFVHNFMSSRFLKNVTVGYPLMLVVKQFVEKDIEFDRDNTIVMLDRIQYEALIVAAAA 61' LRLIQ-VPKGPVEGYEE-NEEFLRTMHHLLLEVEVIEGTLQCPESGRMFPISRGIPNMLL 61" VNQSDRIPREKPEKWDELTDEQLRVFHHLLMNIDVIDGELICPETKTVFPIRDGIPNMLK *** *** HP10173 119 SEEETES 121" VDAEK HP10173 HP10173 C04H5 C04H5 C04H5

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ig. 10-

HP02644	300	HP02644 300' DDIVIESEALPSDIAAEARAKIGGIVSDQALLRGDDDAGEGPSSLIREKFVPKQNENEEE
CELLE 5 5 F 8	263"	CELF55F8 263"
HP02644	360	360' NLIKEQYGNIKQELDDKSATCKAYPRRPLLGLVLTPTRELAVQVKQHTDAVARFTGIKTA
CELLP55P8	323"	CELP55F8 323"ALIVAPTRELVIQIMKHINALISTYQIAT
HP02644	420	420' ILVOGMSTQKQQRMI-NRRPEIVVATPGRIMELIKEKHYHLRNIRQLRCIVVDEADRM
CELF55F8	383"	CELF55F8 383" SIVGGLAQVKQERIISQQRDDIVVATPGRLMAMMQEAETGEFLAEWKULKCLVVDETDRM
HP02644 4		HP02644 477' VEKGHPAELSQLLÆMLNDSQYNPKRQTLVPSATTLTLVHQAPARILÆKKHTKKMINKTALD
CELLESSEB	443"	CELF55F8 443" VERGYFAELTHIIAKIHEESEKEKLQTLVFSATLTFAKAQDVAEBEKKKAKELSSQQKIQ
HP02644	537	537 · LLANGKIGAR-GKPKVIDLIRNEATVETLITETKIHCET-DEKDFYLYYFIANGYPGRSIVVFA
CELLF55F8	503"	CELP55P8 503" RLIKLIGIRENKHKVIDLIRQMGTAGCIVEARINCGVILEKDYISLVYILIRYPGRTIVEV

CELLESSP 803" NOKIDETKEWKRKSKRATREDEANSMKKSLKSSQKNKERLAERKKEKAAKVIYL,SETD

Fig. 10-2

HP02644	595	595 NSISCIKRISGLIKVIDIMPLITLARČMEQKQRLRNIEQFARLEDCVLLATDVAARGIDIP
CELLF55F8	563"	CELLF55F8 563" NSIDAARRLYSVIKSVNIDPMILHAKMIQKQRLKNLEKFSESKNAVLLATDVAARGIDIQ
HP02644	655'	655' KVQHVIHYQVPRTSEIYVHRSGRTARATNEGLSLMLIGPEDVINFKKIYKTLKKDEDIPL ******* * * * * * * * * * * * * * * *
CEI.P55P8	623"	CELP55P8 623" GIDHVIHYQVPKKVEIYIHRSGRTARASHRGLTVVUVDPPSRQFYMKLCKGLARMQDLAV
HP02644	715	715 · PFVQ-TKYMDVVKERIRLARQIEKSEYRNFQACLENSWIEGQAAALEIELEEDMYKGGKA
CELF55F8	683"	683" PPIDFEPIANALKKKVRLASEIDSLGFRCKKIRMSESMFEKAARADLDYDETRHRENDG
HP02644	774	774' DQQEERRRQKÇMKVLKKELRHLLSQPLFTESQKIYXYPTQSGKPPILVSAPSKSBSALISCL.
CELLP55P8	743"	×
HP02644	834	834' 9-kQkkktktiktikkerepQpeGpesisan

TOZEGO, BESCHEDL

HP03233	1.	1 MAAPGSCALMSYCGRGWSRAMRGCQLIAGIRSSWPGDLIASARLLSQEKRAAETHFOFFETVS
SPUBM	1.	MSRLRAPVAKFLADGLKGIRSTALAGSRLSN-CRYT
нР03233	61'	EEEKGGKVYQVFESVAKKYDVMNDMMSLGIHRVWKDLLLWKMHPLFGTQLLDVAGGT * ** * ** ****** ** ****************
SPUBM	28"	EDEKEHLVKNVFSSVAKKYDEMNDAMSLGI HRLWKNI FVSRLNPGNSTVPM
HP03233	118	HP03233 118' GDIAFRELNYVQSQHQRKQKRQLRAQQNLSWEEIAKEYQNEEDSLGGSRVVVCDINKEML. *** *** *** ***
зеовм	118"	118" GDIAFRILMHATNHNGDRNTRVIVADINPDML
нР03233	178	HP03233 178' KVG-KQKALAQGYRAG-LAWVLGDAEEL-PFDDDKFDIYTTAFGIRNVTHIDQALQEAHR ** . * . * . * . * . * . * . * . * . *
мапаѕ	150"	150" SVGLRRSKKTPYYDSGRVEFIEQNAEILDKIPDNSIDMYTIAFGIRNCTHIPKVLEGAYR
нр03233	235	HP03233 235' VLKPQGRPLCLEFSQVNNPLISRLYDLYSFQVIPVLGEVJAGDWKSYQYIVESIRRFPSQ ****** * * * * * * * * * * * * * * * *
SPUBM	210"	210" VLKPGGVFSCLEFSKYYPAPLAELYRQYSFKILPLLGTIIAGDSQSYEYLVESIERFPDA
нр03233 295	295	EEFKDMIEDAGFHKVTVESLFSGIVALHSGFKL
SPUBM	270"	270" KTFAKMIEDAGFTLAGETGYETLSFGIAAIHTGIKL

т . 8 1 MELSARYLREKLQRDLEAEHVEVEDTTLNRCSCSFRVLVVSAKFEGKPLLQRHRLVNACL MVNAQQLELLIQNTLEPTHIEIQDM~SGGCGQNFEVIIVSPLFEGKSTLARHRLVNHKL SPAC8C9 1" HP10525

HP10525 61' AEELPHIHAFEQ-KTLTPDQWARERQK

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SPAC8C9 59" QEVIKDIHAFTQURTLSFRHIR

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HP10543	1.	1 MAATEPILAATGSPAAVPPEKLEGAGSSSAPERNCVGSSLPEASPAPEPSSPNAAVPEA * * * * * * * * * * * * * * * * * * *
LEAP1	1.	MAAFQPSQDPQSPAAPPEQQEGAGDCA
HP10543		61 · IPTPRAAASALELPLGPAPVSVAPQAEAEARSTPGPAGSRLGPETFRQFFYQDAA * * * * * * * * * * * * * * * * * * *
LEAP1	28"	!
HP10543	121	HP10543 121' GPREAFRQLRELSRQWLRPDINTWEQIVQEQLLAILFEAARARHTRHTDVRITG
LEAP1	84"	84" GPREAFROLRELSROWLRPDIRTKEQIVEMLVQEQLQAILPEAARARRLRRRADVRITG

нР03090		1 MAARRALHEVEKVGNREQTARFYRDVIGMKVLRHEEFERGCKAACNGPYDGKWSKTIMVGF
CEHYPO	1.	WPARALHYVEYVANRACTIDEFTWVLAMKVLRHEEFERGCEATCNGPYNGRWSKTMIGY
нР03090		61' GPEDDHFVAELTYNYGVGDYKLGNDFMGITIASSGAVSNARKLEWPLTEVAEGVFETEAP
CEHYPO	09	60" GSEDEHFVLEITYNYFIHKYELGNDYRAIVIDSDQLFEKVEKINHRKSGCGRLAVKDP
нР03090	121	HP03090 121' GGYKFYLQNRSI.PGSDPVIKUTIAVSDLQKSLNYWCNI.IGMKIYEKDEEKQRALI.GGYADN
CENYPO	118"	118" DGHERKIGKADQSPKVLRVQVNVGDLEKSKKYWNETLGMPIVEEKSSRIRMSYGDG
11P03090	181	HP03090 181' QCKLELQGVKGGVDHAAAFGRIAFSCPQKELPDLEDLAKKRENQKILITPLVSLDTPGKATV * ***********************************
CEHYPO	174"	174" QCELEIVKSQDKIDRKTGFGRIAFSYPEDKLESLQDKIKSANGTIINELTTLETPGKADV
нР03090	241	HP03090 241' QVVILADPDGHEICFVGDEAFRELSKADPEGSKLLDDAMAADKSDEWFAKHNKPKASG
CEHYPO	234"	CEHYPO 234" OVVIIADPDEHEIGEVGDEGFRALSKIDDKAESEIKEOIKKDDSEKWI

HP03145	-	 MLGSRAAGFARGLRALALAWLPGWRGRSFALARAAGAPHGGDLQPPACPEPRGRQLSLSA
scco02	1.	MIIKPIASPARYFLRTPSWSAVALFQAVKIKPLQLRTNSSNSVTPNLJSPSK
HP03145	61	61' AAVVDSAPRPLQPYLRIARLDKPIGFWLIXLPCTWSIGLAAEPGCFPDWYMLSLFGT * * * * * * * * * * * * * * * * * * *
scco02	53"	YAYDSSLVNVIK
HP03145		118' GALIANGAGCTINDMUDQDYDKKVTRTANRPIAAGDISTRQSFVFLGGQLTLALGVLLCL x *** *** ** * * * * * * * * * * * * *
scco02	113"	113" GSFLARSAGCVINDLWDRELDAKVERSKSRPLASGKLSVRQAISLLSVQLTASLGILLQL
HP03145	178	NYYSIALGAGSLLLVITYPLMKRISYWPQLALGHFRWGALLGWSAIKG-SC-DPSVCLP
scco02	173"	
HP03145	236	236 LYFSGVMWTLIYDTIYAHQDKRDDVLIGLKSTALRFGENTKPWLSGFSVAMLGALSLUGV ** * ********************************
scco02	233"	233" LYLSTISWIVLYDTIYAHQDKRDDVKANIYSTALRFGDNTKPVLCGLAALQIATLATAGI
HP03145	296	NSGQTAPYYA-ALGAVGAHLTHQIYTLDIHRPEDCWNKFISNRTLGLIVFLGIVLGIULMK
scc002	293"	293" MNGQGPVFYTLGVAGAAYRLSSMIYKVDLDDPKDCFRWFKRNSNFGYLVAAAIALDWLAK
HP03145	355	EKKTDKTKKGIENKIEN
scco02	353"	SFLYDS

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нР03185	ī	MSGRSGKKKMSKLSRSARAGVIFPUGRIMRYLKKGFFRYRISVGAPVYMAAVIEYLAAEI ** * *** * *** * *** * *** *** *** ***
MH2A1.2	÷	MSSRGGKKKSTKTSRSAKAGVIFPVGRMLRYIKKGHPKXRIGVGA PVYMAAVLEYLTAEI
HP03185	61,	61. LELAGNAANDIKKARIAPHHILLAVANDEELAQLLKGVTIASGGVLPRIHPELLAKKRGT ************************************
MH2A1.2	61"	61" LELAGNAARDNKKGRVTFRHILLAVANDEELNQLLKGVTTASGGVLPNIHPELLAKKRGS
нроз185 121	121	KGKSETIISPPPEKRGRKATSGKKGGKKSKAAKPRTSKKSKPKDSDKEGTSNSTSEDGPG
MH2A1.2	121"	
нР03185	181	DGFTILSBKSIVLGQKLSITQSDISHIGSMRVEGIVHPTTAEIDLKEDIGKALEKAGGKE
MH2A1.2	181"	181" DGFTVLSTKSLFLGQKINLIHSEISNLAGFEVEAIINFTNADIDFKDDLGNTLEKKGGKE
HP03185 241'	241'	FLETVKELRKSGAPLEVARAAVSQSSGLAAKFVIHCHIPQWGSDKCEEQLEETIKNCLSA
MH2A1.2	241"	FVEAVLEIRKKNGPLEVAGAAVSAGHGLPAKFVIHCNSPVWGADKCEELLEKTVKNCLAL
иР03185	301'	AEDKKIKSVAFPPFPSGNNCFPKQTAAQVTIKAISAHFDDSSASSIKNVYFII.FDSESIG
MH2A1.2	301"	ADDKKLKSIAFPSIGSGRNGFPKQTAAQLILKAISSYFVSTMSSSIKTVYFVLFDSESIG
нР03185	361	IYVQEMAKLDAK *********
MH2A1.2 361"	361"	IYVQEMAKLDAN

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HP10648 181' LTPRAPGSPRGOHEPSKPPPAGETVTGGFGAKKRKGSSSQAPASKKLNKEELPVIPKGKP MSTGANLLVMNDTC HP10648 241' KSGRVWKDRSKKRFSQMLQDKPLRTSWQRKMKERQERKLAKDFARHLEEEKERRRQEKKQ CEY40B1B 15" KSNRWWKTKQEKKHSEIKKVKTLKSTWDKKMELKAKKDMVKRVQDNIREKQVQERQEKKE HP10648 301, RHAENLKRRLENERKAEVVQVIRNPAKLKRAKKQLRSIEKRDTLALLQKQPPQQPAAKI CEY40B1B 75" RKVEQEKRRLENERKAEIVQKITKIHKLKKTKKRQLRSIQMRDTTQVTK CEY40B1B

НР10162	1.	1. MEPQEERETQVAAWLKKIFGDHPIPQYEVNPRTTEILHHLSERNRVRDRDVILVIEDLKQ * ** ** *** *********** * ****** * *****
RNUNK	1.	1" MAALEEKASQVAEWLKKIFGDHPIPQYEMNARTTEILYHLSERNRVRDRDVNLVIEDLRP
ИР10162	61'	61' KASEYESBAKYLQDIJMESUNPSPANLSSTGSRVINALVDSAVALETKOPSLASFIPAVN ******** * * * ******** * * **********
RNUNK	61"	61" KASEYESBAKRI, EDFIMESVNFSPANLSNTGSRFI.NAI, VDSAIALEIKDTSIASFIPAVN
нР10162	121	HP10162 121' DL/GDL/FRTKSKSEEIKIELEKLEKNL'PATLVLEKCLQEDVKKAELHLSTERAKVDNRRQ ***********************************
RNUNK	121"	121" DITSDLFRTKSKSEEIKLEIGKLEKNLTATIVLEKCIREDIKKADVHLSAERAKAEGRLQ
нР10162	181	HP10162 181' NMDFLKAKSEBERFGIKAAEBQLSARGMINSLSHQSLVALSEKLARLKQQTIPLKKKLES ******* *****************************
RNUNK	181"	181" IMDFLKAKAAEFRFGIRAAERQLSSRGMDASLSHRSLVALSDKLSELKQQTIPLKKKLES
нР10162	241'	HP10162 241' YLDIMPNPSIAQVKIEEAKRELDSIEAELTRRUDMMEL
RNUNK	241"	241" YLDIMPNPSIAQVKIEBAKRELDAIEAEHTKKVDMWEL

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HP10334 1' MSGLRVYSTSVTGSREIKSQQSEVTRILDGKRIQYQLVDISQDNALRDEMR----ALAGNP
                                                             MVIRVYIASSSGSTAIKKKQQDVLGFLEANKIGFEEKDIAANEENRKWARENVPENSRP
                                                                                                                                                                                                 60" ATGYPLPPQIFNESQYRGDYDAFFEARENNAVYAFLGLTAPPGSKEAEVQAKQQA
                                HP10334 58' KAT---PPQIVNGDQYCGDYELFVEAVEQNTLQEFLKLA
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Demonstration

нР10532	ī	1. MAGSEELGLREDTLRUVLAAFLRRGEAAGSPVPTPPRSPAQREPTDFLSRLRRCLPCSLGR
нзввк	1.	1" MAGSEELGIREDTLRVI.AAFI.RRGEAAGSPVPTPP-SPAQEEPTDFI.SRI.RRCI.PCSI.GR
нР10532	61,	61' GAAPSESPRPCSLPIRPCYGLEPGPATPDFYALVAGRLEGLVQEGIKSPPSPELGGPPST ***********************************
изввк	.09	60" GAAPSESPAPCSLPIRPCYGLEPGPATPDFYALVAQRLEQLVQEQLKSPPSPELQGPPST
HP10532	121	HP10532 121' EKENITARIVALLEERAEVINQK
нѕввк	120"	120" EKEAILRRIVALLEEERAEVINQKLASDPALRSKLVRLSSDSFARLVELFCSRDDSSRPSR
HP10532 181	181	V*****
нѕввк	180"	180" ACFGPPPSPEPLARLALAMELSRRVAGLGGTLAGLSVEHVHSFTPWIQAHGGWEGILAV
нР10532	241	HP10532 241' SPVDLNLPLD
нѕввк	240"	240" SPVDLNLPLD

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1. MPUKKKRKSPGVAAAVAEDGGIKKCKISSYCRSQPPARIJSGE ** ** ** ** ** ** ** ** ** ** ** ** **	44' EHFSSKKCLAWFYEYAGPDEVVGPEGNEKFCEDIGVEPENIIMLVLAWKLEAESMGFFTK * **** ** ****** * . *****************	HP10559 104' EEWLKGWYSLQCDCTEKLQNKFDFLASQLADISSFKNITRYARPDFARDKADGASLDIDTAK ************************************	HP10559 164' SMIALLLGRTWRLESUFYQYLEQSKYRVMKNDGWYNVLEFSRTVHADLSNYDEDGAWPVL	HP10559 224' LDEEVENQKVRQTS ******* * * * * * * KIAA 296" LDEEVEWYKDKQMS
1,	44' 1	104.]	164 '	224 '
HP10559 KIAA	559	HP10559 KIAA	HP10559 KIAA	HP10559 KIAA

HP10456 CEBC-2		1. MSNMEKHLEVLKFAAKELSRSAKKCDKEEKAEKAKTKKALOKGNMEVARIHAEN ***** *** ** ** ** ** ***************	
HP10456		55' AIRQKNQAVNFIRMSARVDAVAARVQTAVYMGKVTKSMAGVVKSMDAFLKYMNLEKISAL. *** *** ** ** * * * * * * * * * * * *	
CEBC-2	61"	61.* AIRKKNEAUNYIKMAARIDAVAARVQTAATQKRVTASMSGVVKAMESAMKSMNLEKVQQL	
HP10456	115	HP10456 115' MDKFEHQFETLDVQFQQAEDTMSSTTTLTTPQNQVDMLLQEMADEAGLDLNMELPQGQTG	
CEBC-2	121"	CEBC-2 121" MDRFERDFEDLDVTTKTMEKTMDGTTVLMAPKSQVDALIAEAADKAGIELNQELESNVPT	
HP10456	175	HP10456 175' SVGTSV-ASAEQDELSQRLARLRDQV	
CEBC-2	181"	CEBC-2 181" ALPTGTOAVSEDKDLTERLAALRNM	

HP10498 1'	1	MATPSLRGRLARFGNPRKPVLKPNKPLILANRV-GERRREKGEATCITEMSVMMA
CEC24	7	1" MMFSSPLIKEKALARGKSIYPKVAVFSEILPLASKNHVQAGQKPRAASSSCTQELQALFG
HP10498	55	55' CWKQNEFRDDACKKEIQGFLDCAAR-AQEARKMRSIQETIGESGSLLPNKLAKLLQRF
CEC24	61"	61" CLKKWEEDDVPCSKOHTLYMDCVHKGAERAAAYRDATRKOTLGESGAGGKQSMTSAQFNK
HP10498 112' PNKPYLS	1121	S:I.X.a.XING

121" IQKLFPQPDLGKQPYRQMKRLPTQDYADDTFHRKHWSGKRS

CEC24

HP10505 1' MAKHLKFIARTVMVQEGNVESAYRTLNRILTMDGLIEDIKHRRYYEKPCRRRQRESYERC	* * * * * * * * * * * * * * * * * * *	MVQNNDVDGAFGLLNRIMDSEGMIKITRRTQFYQKPYMQRKTLSMEAS	HP10505 61' RRIYNMEMARKINFIMRKNRADPWOGC
H		-	19
HP10505		CEF29 1"	HP10505

49" TAIFNEDMNRKMKFLVRKNRPDKHPGQVTS

CEF29

1 MFLTAL-LWRGRIPGRQWIGKHRPRFVSLRAKQNMIRRLEIEAENHYWLSMPYMTREQE 1" MHITLINLFKKTVPGHIFRGKRRLVKPVSQRAMDTLTREYERQEQVMLLLRHPYLTMEQS HP10515 DM63B

*** ... * ... * *
DM63B 61" FGHAKELQKREKLVARWTDEQTLRKKKKPHVTIEEKLAQLKIKKEAWD

HP10515 60' RGHA-AVRRREAFEA--IKAAATSKFPPHRFIADQLDHINVTKKWS

F i g. 2

HP01124 1' MCTEKESPEPDCQKQEQAAVSVIQNLFKNGSYRPSYEEMLRFYSYXKQATWGPCLVPRPG * , , , , , , , , , , , , , , , , , , ,	MSQABFEKAAEEVRHLKTKPSDEEMLFIYGHYKQATVGDINTERPG	HP01124 60' FWDPIGRYKWDANNSLGKMSREEAAMGAXITEMKLVAQKVIDTVPL/GEVAEDMFGYFEPLY	HSACBP 47" MLDFTGKAKWDAWNELKGTSKEDAMKAYINKVEELKKKYGI
-	1.	.09	47 "
HP01124	HSACBP	нР01124	HSACBP

F i g. 3

1' MRLSALLALASKVTLPPHYRYGMSPPGSVADKRKNPPWIRRRPVVVEPISDEDWYLFCGD 1" MRITLLLEMAAKLKLPHDYRFGMSRPSTLAAKRRNPPGKRRSKVFVEPVSKEEWQYFRGD 61" TVEVLHGKDAGKÇGKVTQVVRARNWVVVDGLNTHFRYVGRTDEYRGTYVASEAPLLLNQV 61 'TVEILEGKDAGKQGKVVQVIRQRNWVVVGGLNTHYRYIGKTMDYRGTMIPSEAPLLHRQV HP02241 121' KLVDPMDRKPTELEWRFTEAGERVRVSTRSGRIIPKPEFPRADGIVPETWIDGPKDTSVE XLRPL24 HP02241 XLRPL24 HP02241

XLRPL24 181" DALERTYVPSIKTFQEEIMEKTGIAENRSTGNPTGTNPGRAVRSNHNSHCSCTSHGIEIQ

XLRPL24 121" SLIDPTDRKPTEIEWRYTEEGERVRVSARSGRIIPKPVLQRRDGIIPEQWKDGPKDTSVE

LOZEGOEBB TONIZOT

1 MKAVKSERERGSRRRHRDGDVVILPAGVVVKQERLSPEVAPPAHRRPDHSGGSPSPPTSEP	60 ARSGHRGNRARGVSRSPPKKKNKASGRRSKSPRSKRNRSPHHSTVKVKQEREDHPRRGRE ** * * * * * * * * * * * * * * * * * *	MGRDSPRDRRHRDRSPERRRRSRSRSRDRQTRRD-T	121' DRQHREPSEQEHRRARNSDRDRHRGHSHQRRTSNERPGSGQGGGGRDRDTQNLQAQEEERE * ** **	RRDDSPK	PYNARREHRORNDVGGGGGSESQELVPRPGGNNKEKEVPAKEKPSFEL.GALLLEDTNTFR	NFRRPDPVREDGKQYGI	HP10101 241' GVUIXYSEPPEARIPKKRORLYPFKUDEVLPVAYIHRQSAYILGRHRRIADIPIDHPSCS ****** ****** * * ******* * * ********	CEC32E8 148" GVVIXYNEPPEAKKPNARWRLXPFKGEESLQVLYIHRQSAYLJGRDHKIADIPVDHPSCS	HP10101 301' KQHAVEQYRLVEYTRADGTVGRRVKPYIIDLGSGNGTFLNNKRIEPQRYYELKEKDVLKF	CEC32E8 208" KQHAVLQFRSMPFTRDDGFKARRIMPYIIDLGSGNGFFLNEKKIEPQRYIELGEKDMLKF	HP10101 361 GESSREYULHESSOFISEIDREDBEDEREBEEVSDS	CEC32EB 268" GPSTRRYVVMKERELTEEELAEGEDVKKEESD
H	09	1		36"	181	95"	241	148	301	208	361	268
HP10101	HP10101	CEC32E8	нр10101	CEC32E8	HP10101 181	CEC32E8	нР10101	CEC32E8	HP10101	CEC32E8	HP10101	CEC32E8

- i g. 32

* * * * * * * * * * * * * * * * * * * *		
EQDVLFPFD8HTSVCADCSAVFHRDCYYDNSTTCPKCARL51	395	IP10370
361" LGVRRHTAQSNEFYBLSDLSQVESGALBEFLQGVFKAFNDHIR-BCPMCLAQAYICEICS	361"	MCG115
LQDRQHFVENDEMYSVQDLLDVHAGRLGCSLFETHFLFAKHIKLDCERCQAKGFVCELCR	335	IP10370
QETRLFLNKPLTRLEEDNPKLFV	301"	жса115
RYLALAWGRPVLARLREINELLEGYVERLVET RKLAQDITLAMKEYFTTCREAMEARLILQ	276	IP10370
KCAECGTMLNIKNTWT	241"	жсв115
RCAECRAPISINGVPSKARQCDYTGQYYCSHCHWNDLAVIPARVUINWDFEPRKVSRC	216	IP10370
CTTIIMGVVQNBYVCSDCGFLVHQKCIDGVKRVCAHVLVSBRQHPIB	181"	жсе115
CNTINGLIQTWYPCTGCYYRCHSKCLNLISKPCVSSK	156'	IP10370 156'
DINYSHQELERAĞEQHISBOMVUNNATRAVVGINIFVPIIIFHIIGKRURLQAAAKUNYCDII	121"	MC0115
HLALKLQELKDPNEDEPNIRVLLEHRFYKEK 6KSVKQ"	115	P10370 115
61" GAEYRALFIPASINREQWRLIFTSDANIQDLQAAIAHCRDLVILSEELSEERRRHINVHTV	.19	MCG115
егредвекокрау	55	IP10370
1" MSSWKDSLTSIFGTVAQLINESASNLLHASSTLGSTVGLGGBGSTGSGSEAGGSEESGPQ	1.	MCG115
MEYDEKLARFRQAHIANPENKQ3GPRQHEQGPGEEVPDVTPEEALPPGEPEF	-	1P10370

F i g. 3

HP10427 1' MAGPAAAFRRLGALSGAAALGFASYGAH---GAQFPDAYGKELFDKANKHHFLHSLALLG ***** MSPIIRLAGLSGAVAISLGAYGSHVLRDNPSIDERRRTAFDTASRYHLIHSLALLA HP10427 58' VPHCRKPLWAGLILLASGTTLFCTSFYYQALSGDPSIQTLAPAGGTLLLLGWLALAL CEY106G 1"

CEY106G 57" SPAARFPLVTAGLETAGITLFCGPCYHYSISGVETTRKYTPIGGVTLIIAWLSFIL

410014H	<u>.</u>	HPIOSIO I. MAGTGLLALKTLPGPSWVNGSGPSVLSKLQDAAVVRPGFLSTAEEFTLSKHELFFELKKKK * * * * * * * * * * * * * * * * * *
DMCG141	1.	MA
HP10516		61. YEYDHWDAAIHGPRETEKSRWSEASRAILQRUQAAAFGPGQTLLSSVHULDLEARGYIKP ** **** *** *** * * * * * * * * * * *
DMCG141		29" YEFDHWDDAIHGFRETERKKWFPKNREILERVRQVAFDGAVMFYVHILDLAPDGVIKP
HP10516	121	HP10516 121' HVDGIKFCGAFIAGLSLLSPSVMRLVHT
DMCG141	87"	87" HVDSTRYCGNTISGISILSDSVMRLVRTDEQRYQQQSSGTATDPNSQGSEPDAAYRHQPE
HP10516	153	HP10516 153* EMLELLLEPGSLYILRGSARVDFSHEILRDEESFFGERRIPRGRRISVICRSLP ** *** *** *** *** *** *** *** *** ***
DMCG141	147"	DMCG141 147" ASLKNNFYADILLPRRSLYIMSHTARYKFTHEILAKEHSOFOGALUPRTRRISIICRNEP

HP10580	H	MKKFRQEFKADIKPK	
DMCG546		** ···· 61" TLLKVLIVLLIGTCVLAGYSWSIYGKVITEKEVRPSTLKEIEELKLSKAEAAFKLNLTGS	
HP10580	16'	16' SAGPGQKLKESVÖGEKAHKEKPNQPAPRPPRQGPTNEAQMAAAAALARLEQKQSHAWGP	
DMCG546	121"	DMCG546 121" GMGTGHKIANSPKQETPSSSSRQKYEAYVPPKRNEISNEARAAASAALAKIDKKTSREFN-	
HP10580	74.	74. TSQDTIRNQVRKELQAEATVSGSP-EAPGTNVVSEPREEGSA-HLAVPGVYFTCPL-TGA	35/35
DMCG546	180"	DMCG546 180" TSLSAVKAQAKRELAZERQREEAMGTPSTTSTSTSASGGDTRNLACEGVFFRCPLISEE	7
HP10580	131	HP10580 131' TLRKDQRDACIKEAILLHFSTDPVAASIMKIYTFNKDQDRVKLGVDTIAKYLDNIHLHPE	
DMCG546	240"	DMCG546 240" ILPKSVWKVRIKEFLYQQLEADRGLTACLIIHNCN-VKEKADECIATLIRYLENLIKNPE	
HP10580 191	191	EEKYRKIKLQNKVFQERINCLEGTHEFFEALGFQKVLLPAQDQEDPEEFYVLSETTLAQP	
DMCG546	299"	QIDGEPFL	

Fig. 35-1

VERLSVIRTKAMREKEEQRGLRKYNYTLLRVRLPDGCLLQGTFYARERLGAVYGFVREAL IAQSQMIRTKAMRERERRORNLRMYRYALVRVKFPNGLFIQGTFNVYEKISDVFEFVQSCL QSDWLPFELLASGGQKLSEDE-NLALNECGLVPSALLITFSWDMAVLEDIKAAGARPDSIL DMCG546 472" ADESLDFSLVSNSDGKLGDEDLEKTLYDCKLIPNTLLLFSANDTPAPLQTDINYLKEDLL QSLERHKEQLLAAEPVRAKLDRQRRVFQPSPLASQFELPGDFFNLTAEEIKREQRLRSEA LDLPTLVEALKSSEIIPLELDRNIKVLLPSQ-ACRVALPDEFYRLSPEEIKKEQQLRSEA 353" HP10580 311' DMCG546 412" 251 371 HP10580 HP10580

HP10580 430' KPELLSAIEKLL

DMCG546 532" MLVQAM